

Project material and workshop tips for the home shop owner

Deltagram

VOLUME 23 • ISSUE 4

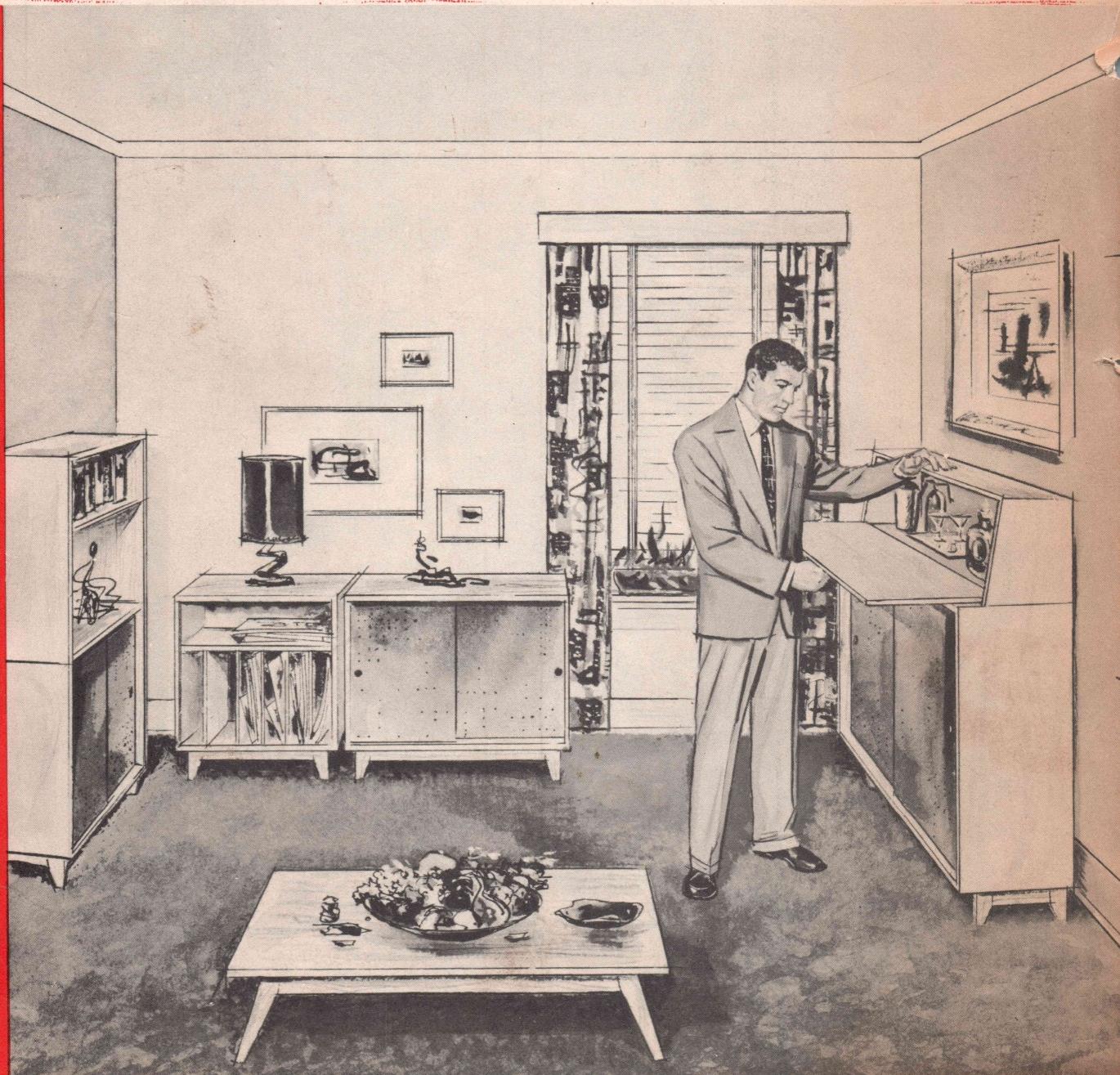
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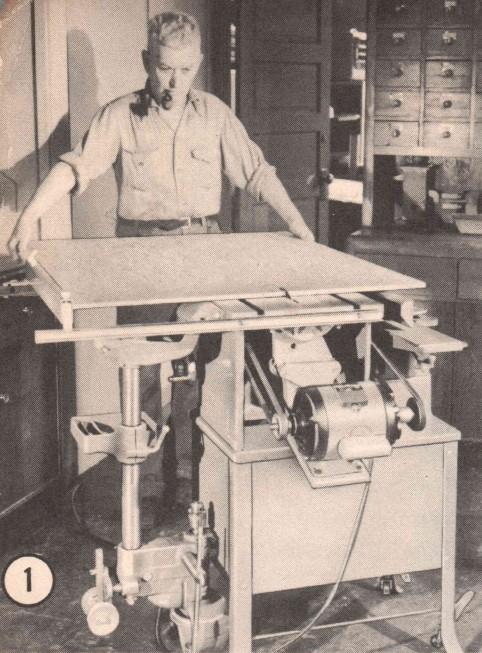
ISSUE:

MODERN PICTURE FRAME, MODULAR FURNITURE: OPEN BOOK CASE, CLOSED BOOK CASE UNIT, CABINET FOR RECORD ALBUMS, PLANTER CABINET, VALANCE, BAR UNIT, MODERN COFFEE TABLE, MAGAZINE RACK, HOSIERY DRAWER, DRAWER TRAY, SCROLLED SHELF, TOOL PANEL, ETC.

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Chuck was alone in the house and busy in the workshop when the doorbell rang. It was Dave Shaw, a young fellow who had just recently moved next door with his wife and baby.

"Hi Chuck," said Dave, "I've been listening to your power saw working away and wondered if you'd mind a kibitzer for a little while."

"Any time," laughed Chuck. "You're always welcome. In fact, you might be interested in the furniture I'm building—I'm using plywood and it sure is easy to handle."

"I'll say I'm interested," said Dave as they went down to the shop. "We certainly need some more furniture at our place. The furniture we had in our small apartment is lost in our new house and I've been thinking about trying my hand at building some. In fact, I was looking at one of those combination power tools at Jerry's store; I wanted to ask you about it."

"It must have been a Deltashop then," said Chuck, "and it's just what I would recommend for a fellow like yourself just starting a workshop."



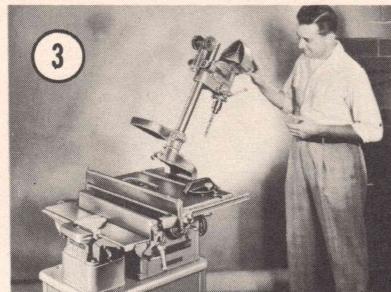
Chuck's Workshop

Starting a Workshop

"You see," he continued as he walked over to his saw, "the heart of the Deltashop is the 8" tilting arbor saw, the identical saw that I have here. It's got enough rip capacity to cut to the center of a four-foot plywood panel, and since the standard panel is 8' by four feet, it's all you need for the jobs you do around the house. Then, of course, you can get a dado head and a moulding cutterhead to cut grooves of all sizes and also those fancy mouldings that make your job look real professional."

"What's the purpose of the tool mounted right beside the saw on the Deltashop?" asked Dave.

"That must be the jointer-planer," said Chuck. "It gives you a perfectly

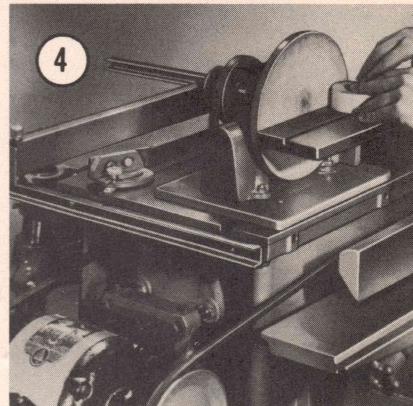


planed edge every time—works just like a hand plane, except you can't go wrong. And then, of course, there's the standard Delta 11" Drill Press that makes up the third basic tool on the Deltashop. All you have to do is swing it up, adjust the belt, and it's ready to go to work. Try it yourself!"

"Gee," laughed Dave, "there's certainly nothing to that and it sure looks like it ought to do a job!"

"You can bet on it," Chuck replied. "There must be over a hundred different jobs you can do on that drill press; it's really a jack of all trades! And that goes for the disk sander that is the fourth tool on the Deltashop. Gives all your jobs a professional finish and does a variety of other things, like horizontal drilling and drum sanding."

Dave thought all this over for a minute and then said, "I'll bet this one combination tool would put me in business, especially since I'm just starting my workshop. I'll have to take my wife down to see it."



"Sure it will," said Chuck. "A Deltashop and a few sheets of plywood is all it will take to start you building that extra furniture you need. You'll find that it will all pay for itself too."

"And," he continued, "you don't have to buy it all at once. You can start with just the saw and stand, and add the other tools whenever you are ready for them. That's the advantage of buying a combination unit that's made up of separate, standard tools."

"But how about plywood?" asked Dave. "Is there much choice in different finishes and so forth?"

"You bet," said Chuck. "You can get plywood in almost any kind of wood, such as birch, walnut, mahogany, maple and, gosh, I don't know what else. You can even get it in finishes you can't find in natural wood, like striated plywood or Weldtex—they look something like a corduroy finish. Just shop around and you'll find the plywood for what you have in mind."

"I'm going to do that," said Dave. "I know I can't start right out with a shop like yours, but you've got to start somewhere and I think a Deltashop and plywood is the answer."

"OK," Chuck called as Dave started to leave, "and I'll be glad to help you all I can. Next time bring the Mrs. along—I'll bet she'll be interested in these tools too—they always are."

"Thanks a lot, and we'll do that," Dave answered as he went out the door—leaving Chuck thinking, as so often happens with old timers—

"I wish it had been as easy for me when I started my home workshop!"

Deltagram

A. M. Warkaske—Editor

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All correspondence regarding projects and editorial material should be addressed to the editor of the Deltagram, A. M. Warkaske, Delta Power Tool Division, Rockwell Mfg. Co., 400 N. Lexington Ave., Pittsburgh 8, Pennsylvania.

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Plans for the major portion of the projects in this issue were made up entirely of birch plywood and peg board. Among these are nine pieces that were exhibited at the New York Do It Yourself Show.

Cover Shot

Projects appearing on this month's cover are described in detail on the following pages.



FLYING CHIPS and READER COMMENTS



Mr. Gilbert R. Twyman, a booster for Delta Tools from way back when, has submitted the photographs of the two pieces of cherry furniture he recently built in his shop. This work shows the kind of skilled craftsmanship that Mr. Twyman can be justly proud of.



SILVER TARNISH PREVENTATIVES

Pittsburgh, Pennsylvania:

Regarding protective cloth for sterling silver drawers or cases, I am happy to report that I have some information for you. The Gorham Company reports that the subject material is "Pacific Silver Cloth," a product of Pacific Mills Company. They describe it as a dark brown cloth impregnated with grains of silver which act as an

absorbent agent for tarnishing fumes in the atmosphere. They further state that it is available through their dealers. They list this product in their brochure, "The Gorham Company Recommends Pacific Silver Cloth" (EAJ-35M-4-53) as being thirty-one inches wide and costing \$2.50 per yard.

I have been attracted by another product called VIGIL and manufactured by the Vigilant Products Corporation, 40 East Thirty-fourth Street, New York 16, New York. This product is described as a chemical tarnish preventative which when placed in a closed drawer or closet will prevent tarnish by absorbing all the oxygen from the enclosed air. They report that it is sold by leading department stores and is used by jewelers in their show cases. They claim that their product is effective in an approximate volume of twenty cubic feet; retains potency from four to six months; endorsed by Good Housekeeping; retails at seventy-five cents per jar. They neglected to state whether it was liquid or cream but I assume it is a cream.

Rolland E. Miller



The photo above was sent in to us by Rev. Norman, a missionary of the Norman Camp Missionary of Belgian Congo. It sure is gratifying to know that Delta Tools are being represented in their project, not only to teach the students the use of power tools, but to maintain and build furniture for use in the camp.

Chicago, Illinois:

I was given to understand by an expert cabinet maker here in Chicago, who served his apprenticeship in Europe, that all good cabinet makers there who make up exceptionally fine pieces of furniture always order their stock by the log rather than so many feet of this or that stock.

Is there a place here in the United States that can furnish material by the log, re-sawed to whatever thicknesses one requires?

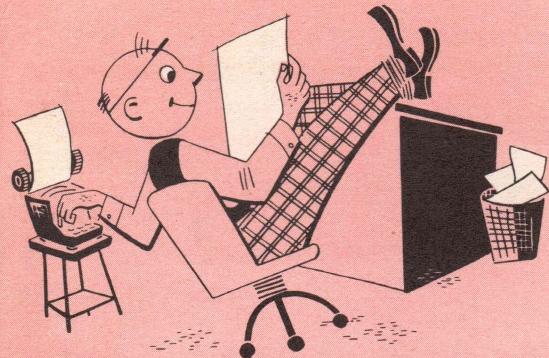
The members of our local hobby club would be very much interested in this type of material set-up. We are anticipating on building reproduction pieces of furniture in either walnut or mahogany.

A source of supply for material of this type will be very much appreciated by myself and fellow members of our club.

J. C.

Some literature on the very type of material in question has come to my attention. The firm who will fabricate these logs under the name of Guild-Hall Lumber is Guild Hall, Inc., #7 Seventh Street, Des Moines, Iowa.

The Editor



From the Editor's Desk

PLYWOOD PROJECTS

As a service to new readers of the Delta-gram as well as our older friends, we have featured in this issue the many possibilities offered to the home craftsman by the new and modern types of plywoods. We have only scratched the surface here, but it will give you some idea of the many exciting projects you can build with this easy-to-buy, relatively low-cost material.

We wish to thank the U. S. Plywood Corporation for their assistance. Incidentally, all projects shown in this issue were made from readily available U. S. Plywood products.

SOAP BOX DERBY TIME

During the months of July and August throughout the nation, the youngsters who have worked so hard up to now bringing their soap box derby cars in ship-shape for the eliminations and tryout are hoping that their car will win at the local contest. Every one of these boys has only one thing in mind, "I hope I win this race to get a chance at the national cup at Akron, Ohio." There's still time for you fathers to give your boy that help he needs. Whatever you do, don't do the work for him, but just tell him how he should do it. We understand the judges at the elimination trials are going to be real tough this year. If they least suspect that you put any work on your boy's car, it may be rejected from the race.

COMING PROJECTS

For the shop enthusiast who likes to make finer pieces of furniture, we have acquired some up-to-the-minute designs of living room and dining room furniture. These pieces were designed by Mr. David G. Whitcomb of New York City. He is one of the leading designers in the furniture field today.

Some of the pieces to be featured are coffee tables, stool tables, lamp tables, occasional tables, end tables, sofas, arm chairs, lounge chairs, pull-up chairs, radio-TV record cabinets, shadow box frames, card tables, lamp bases, hanging shelves, folding screens, and other pieces from time to time. Watch for the first pieces of this series in the September-October issue. So long for now.

Modern Picture Frame

1

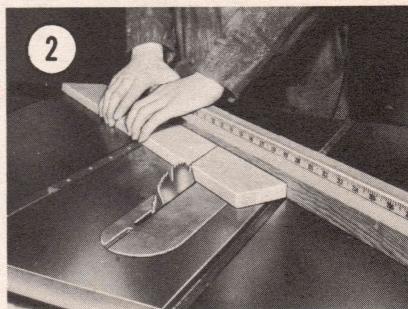


The grain pattern lends a gentle beauty to this otherwise unadorned picture frame. Its mere simplicity will grace any wall and certainly harmonize with any picture it might frame.

All cutting is done on the circular saw. Proper settings for the compound miter corners are $54\frac{3}{4}^\circ$ for the miter gage and 30° for the saw blade or table tilt. These settings give the frame a slight shadow box effect. Double check all settings to be certain that your cuts will produce perfect compound miter corners. Even a slight error will prevent proper joining of the corners.

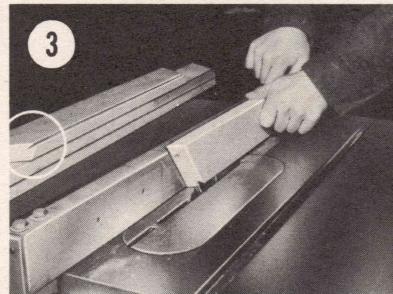
For finishing, stain or leave natural to suit your needs. Seal with two coats of white shellac, sanding lightly between coats with 6/0 garnet paper. After sealing, apply two coats of rubbed effect varnish. Use 6/0 steel wool between coats. For other finishing processes, refer to the Delta Manual, "Practical Finishing Methods."

The slanting sides of the frame tend to make a shadow box effect and help dramatize the picture. Putting glass in front of the picture is optional; however, it does help protect the picture and keeps it clean.



The compound corner cut is made with the miter gage set at $54\frac{3}{4}^\circ$ and the blade or table tilted to 30° . Note the auxiliary facing is fastened to miter gage head, for added support to long stock.

3



This is the first cut in making the rabbet which receives the glass and picture. Notice that the blade enters the stock exactly at corner of edge and side. Blade is set at 30° .

4



In the second rabbet cut, the waste stock will be removed. The angle of the blade remains the same as it was in the first cut, but the stock is turned on its side for this cut.

5

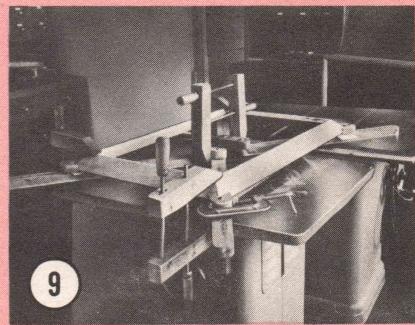
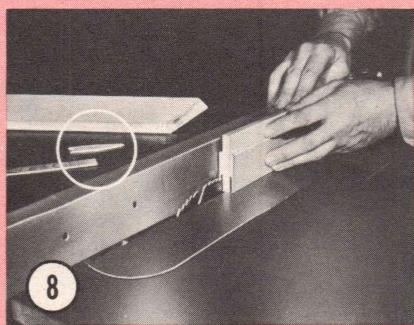
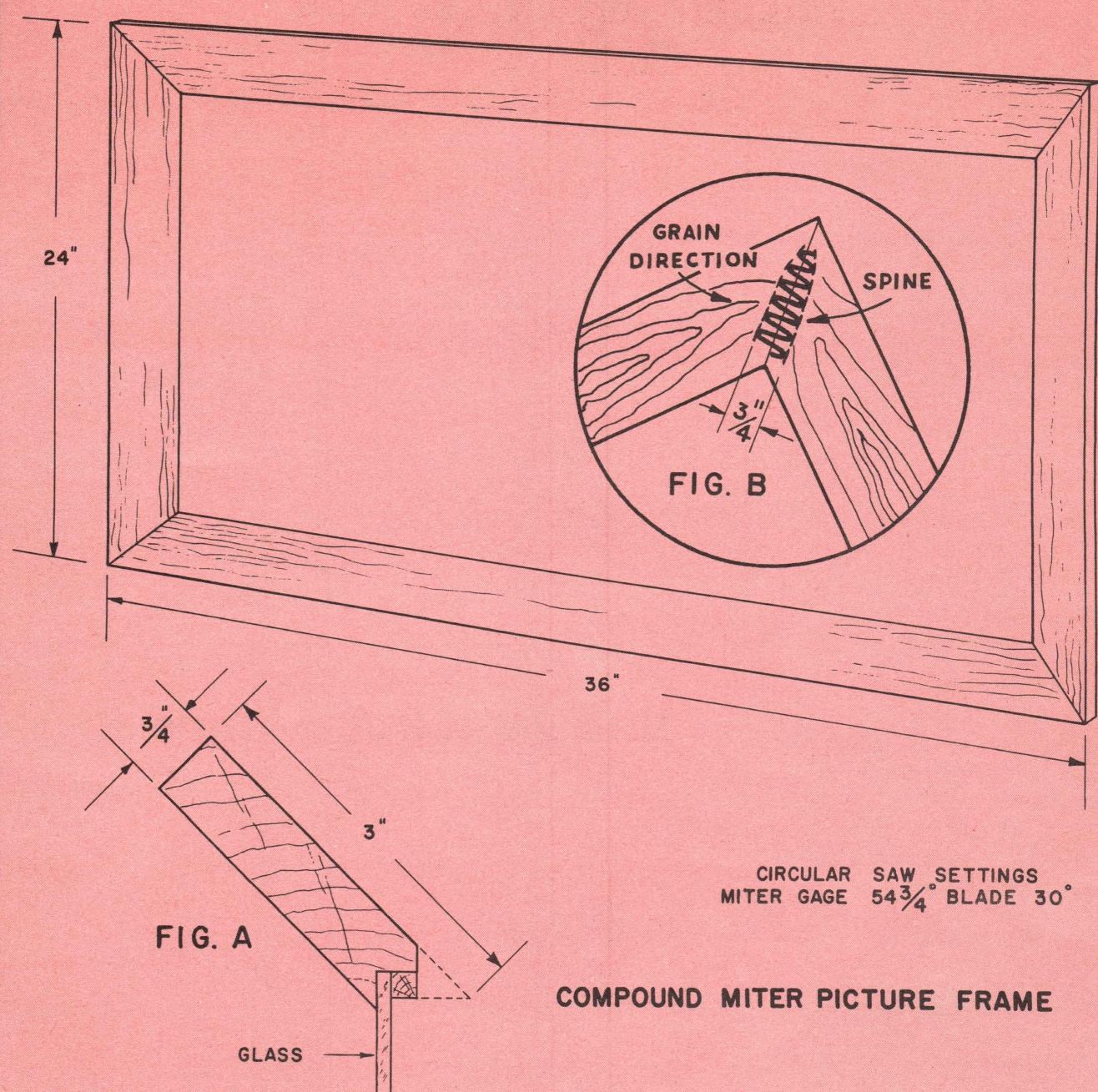


This cut (Fig. A on the drawing) gives the back of the frame a flat surface for resting against the wall.

6



The blind spline cut is accurately made by holding the edge of the compound miter cut, firmly and evenly against the fence and table. Note the stop marks on the auxiliary fence.



This is the same frame section shown in Photo 6 with the blind spline cut being made in the opposite end. The auxiliary fence is used to prevent the thin sharp corner from jamming in the slight opening between the fence and table.

The thickness of the stock for the splines is slightly under the width of the saw kerf made by your saw. When in place, the grain of the spline is perpendicular to the corner joint. (Fig. B on drawing.) The spline is cut to shape on the band saw.

Two machine tables of the same height make a convenient working area for gluing up the frame. The plans for the gluing frame clamp appear in the Delta Craftsheets and in Vol. 3, Page 559, of the Bound Deltagram Volumes.

Furniture Anyone Can Build

This modular plywood furniture is easy to build but by the very simplicity of its lines and construction details is attractively modern. You can use it to transform a bare wall in your living room, den, playroom or even a bedroom into a handsome setting that you'll be proud to show.

Notice that even the individual pieces are versatile. The cellaret, for example, can be used as a wall type secretary with the addition of any of a number of easy-to-buy shelf supports. Or, in the game room it becomes an attractive bar for dispensing cool, refreshing drinks to your guests.

Shelves in the individual pieces are adjustable, allowing you to use them for a variety of storage purposes and giving you that valuable "extra" storage space that every home requires.

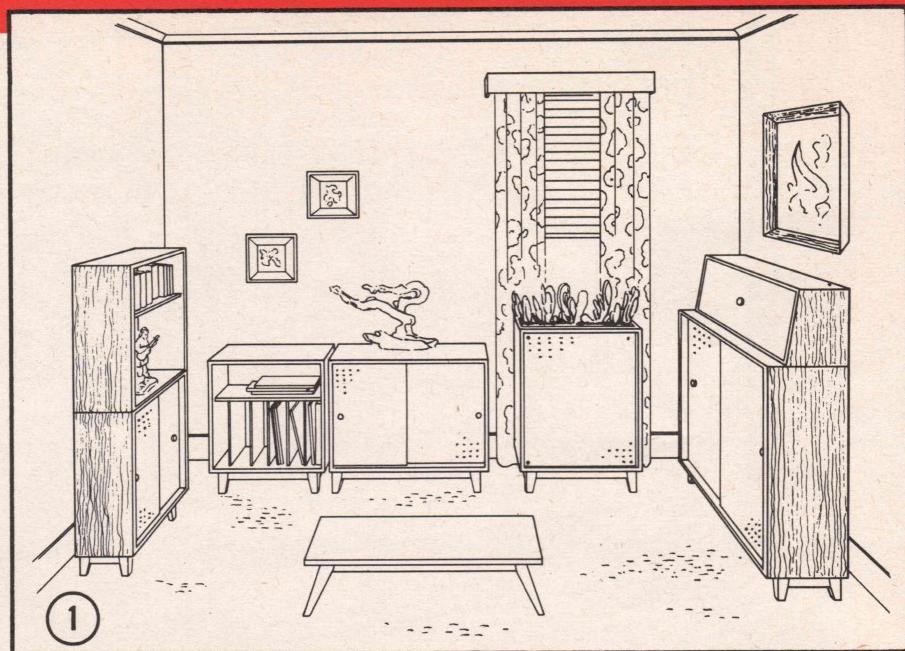
The grouping of pieces as illustrated on this page is purely arbitrary. You can change them around to suit your own taste and the requirements of your room.

The major pieces shown here were all built in one week—on the spot—at the New York Do It Yourself Show, in cooperation with the U.S. Plywood Corp. This was possible because the design of these units is such that they lend themselves readily to mass production. Should you decide to build several or all of the pieces, lay out your work so that you make all of the same type cuts at the same time.

You'll find plans on pages 72 and 73 for mass producing the legs by using a simple jig. This, again, makes it easy to produce all the units at once.

Whether you decide to build the entire series or just one or two pieces, we are certain that you will enjoy building them and that you will save a lot of money by doing it yourself.

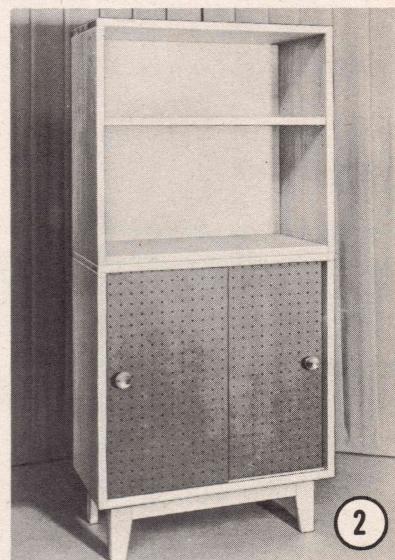
The selection of the type of material to use for this furniture depends on your individual taste. However, to preserve the modern touch, we suggest birch or korina plywood which gives a beautiful blond finish.



Unit Furniture (A and B)

Unit (A)

No.	Name	Size
2	Sides	$\frac{3}{4} \times 12 \times 22\frac{1}{2}$
1	Bottom	$\frac{3}{4} \times 12 \times 23$
1	Top	$\frac{3}{4} \times 12 \times 24$
1	Shelf	$\frac{3}{4} \times 10\frac{1}{4} \times 22\frac{1}{8}$
1	Back Panel	$\frac{1}{4} \times 23\frac{1}{2} \times 22\frac{1}{2}$
4	Shelf Supports (Dowels)	$\frac{1}{4} \times 1"$

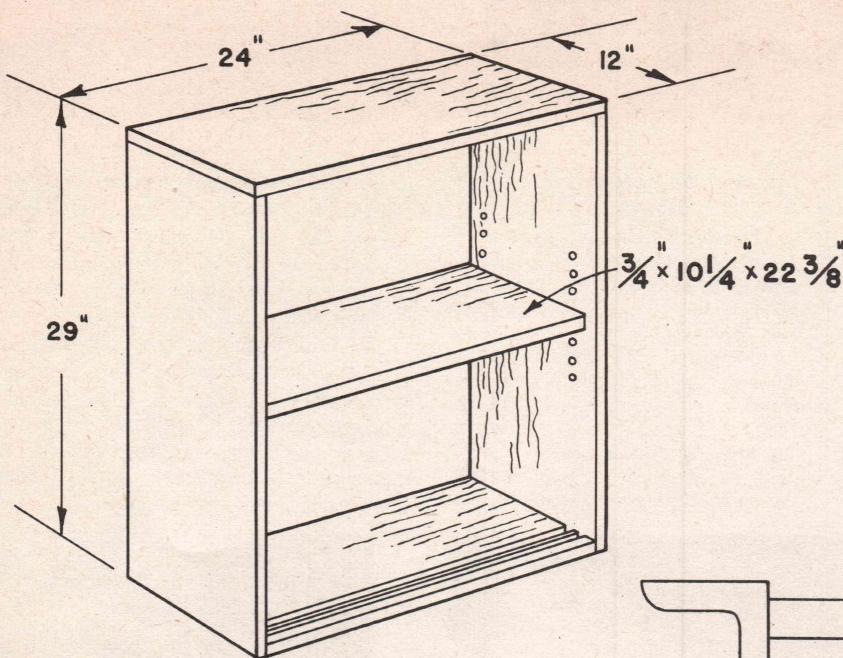


Here are two of the modular units combined as one piece of the entire functional grouping.

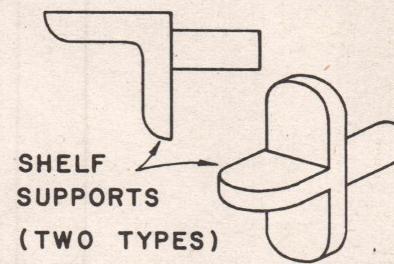
The metal door pulls are $1\frac{1}{2}$ inch diameter with a concave surface. They can be purchased with either gold or silver finish at local hardware stores.

BILL OF MATERIAL Unit (B)

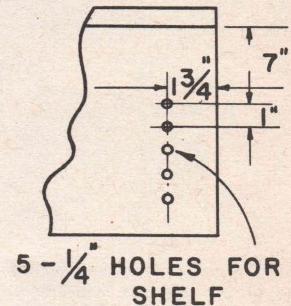
No.	Name	Size
4	Legs (Front & Back)	$\frac{3}{4} \times 2 \times 6$
2	Legs (Side)	$\frac{3}{4} \times 1\frac{1}{4} \times 6$
1	Front Stretcher	$\frac{3}{4} \times 2 \times 17$
2	Side Stretchers	$\frac{3}{4} \times 2 \times 6\frac{1}{2}$
1	Back Stretcher	$\frac{3}{4} \times 2 \times 19\frac{1}{2}$
2	Sides	$\frac{3}{4} \times 12 \times 22\frac{1}{2}$
1	Bottom	$\frac{3}{4} \times 12 \times 23$
1	Top	$\frac{3}{4} \times 12 \times 24$
1	Shelf	$\frac{3}{4} \times 10\frac{1}{4} \times 22\frac{1}{8}$
1	Back Panel	$\frac{1}{4} \times 23\frac{1}{2} \times 22\frac{1}{2}$
2	Doors (Peg Board)	$\frac{1}{4} \times 12 \times 22$
4	Shelf Supports (Dowels)	$\frac{1}{4}$ Diam. x 1
2	Door Knobs	$1\frac{1}{2}$ Diam.
16	Dowels	$\frac{1}{16} \times 2$
10	Fl. Hd. Wood Screws	#8 x 1 $\frac{1}{4}$



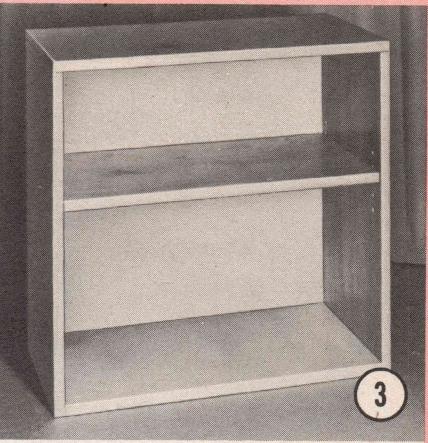
CABINET
WITHOUT DOORS
AND BASE
UNIT A



SHELF
SUPPORTS
(TWO TYPES)

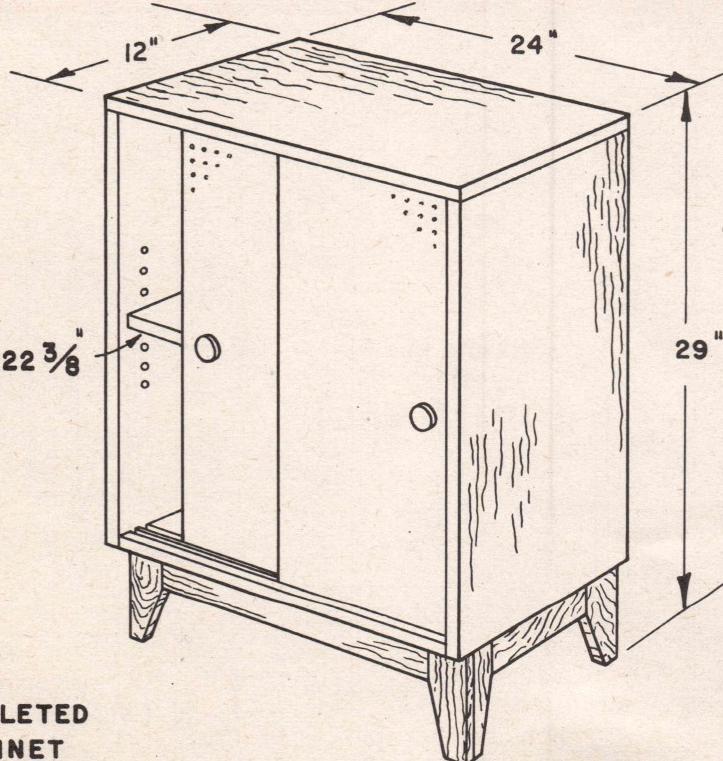


5 - $\frac{1}{4}$ " HOLES FOR
SHELF



3

The top cabinet unit also has an adjustable shelf. Sides, top and bottom have blind dado construction and are glued together. The back is rabbeted and screw fastened or nailed in place.



COMPLETED
CABINET
UNIT B

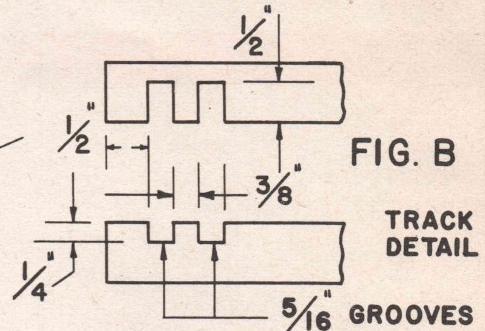
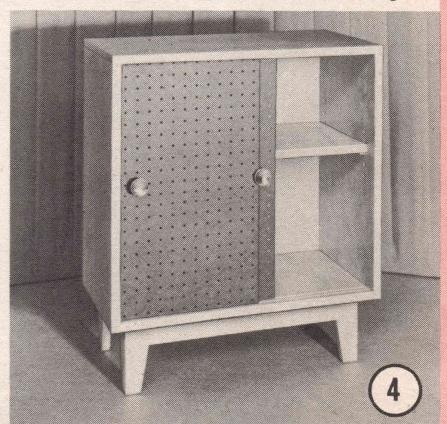


FIG. B
TRACK
DETAIL

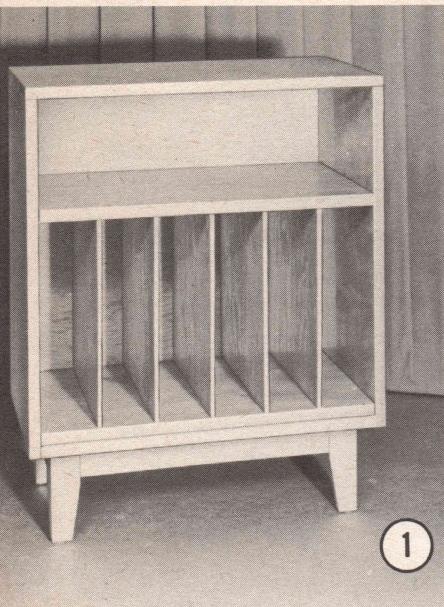
This view shows the action of the sliding doors and exposes the adjustable shelf. Details for the slide grooves are shown in Fig. B in the drawing.



4

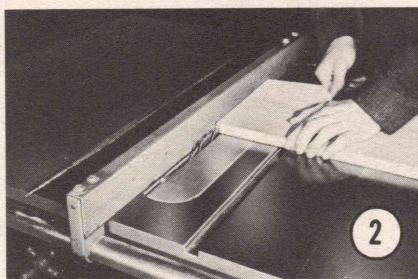


Furniture (UNIT C)



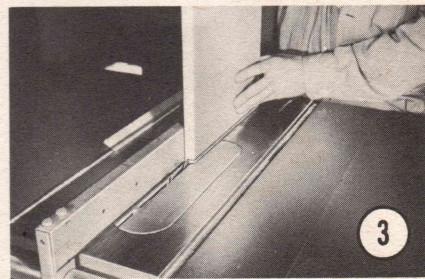
This cabinet further demonstrates the flexibility of a basic size unit. Bach, Beethoven and Benny Goodman can be placed side by side in the separated record album compartments.

BILL OF MATERIALS Unit (C)		
No.	Name	Size
4	Legs (Front & Back)	$\frac{3}{4} \times 2 \times 6$
2	Legs (Side)	$\frac{3}{4} \times 1\frac{1}{4} \times 6$
1	Front Stretcher	$\frac{3}{4} \times 2 \times 17$
2	Side Stretchers	$\frac{3}{4} \times 2 \times 6\frac{1}{2}$
1	Back Stretcher	$\frac{3}{4} \times 2 \times 19\frac{1}{2}$
2	Sides	$\frac{3}{4} \times 12 \times 22\frac{1}{2}$
1	Bottom	$\frac{3}{4} \times 12 \times 23$
1	Top	$\frac{3}{4} \times 12 \times 24$
2	Top & Bottom (Record Comp.)	$\frac{3}{4} \times 11\frac{1}{4} \times 22\frac{3}{8}$
5	Compartment Panels	$\frac{1}{4} \times 11\frac{1}{4} \times 13\frac{1}{2}$



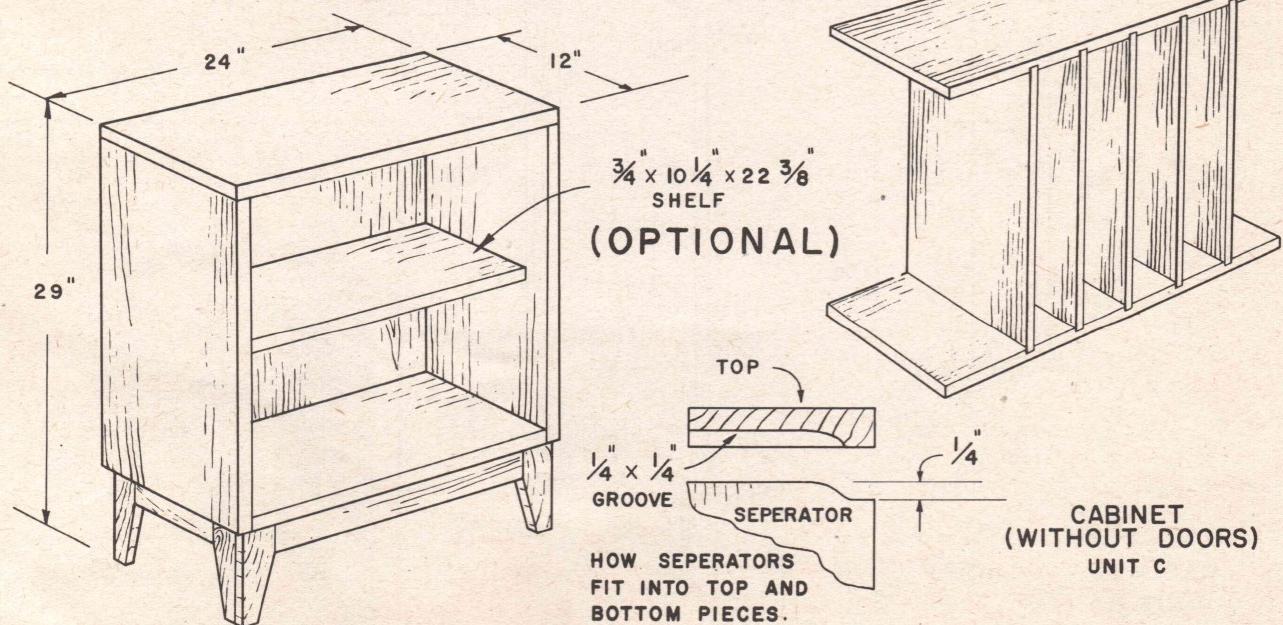
Tongues for the sides and bottom are made on the circular saw. The hollow ground blade shown here makes a clean, smooth cut. This is the first operation in making the tongue.

This cabinet unit matches those on the preceding pages. Basic construction details are the same throughout. The partitioned section is designed to hold record albums. This section is independent of the cabinet construction and can be removed by merely lifting it out. The vertical dividers are $\frac{1}{4}$ inch stock, made of either plywood or pressed-wood, and are blind dadoed and glued into the $\frac{3}{4}$ inch top and bottom of this partitioned section. A shelf can be substituted for the separators as shown in drawing below.

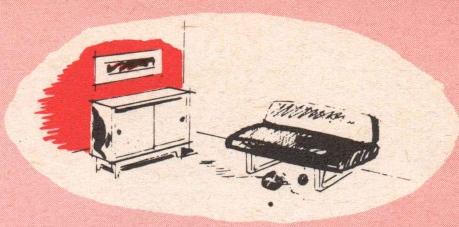


This is the second operation in making the tongues for cabinet construction. Lay out and make trial cuts on a waste piece of stock to insure correct settings of blade and fence.

UNIT C

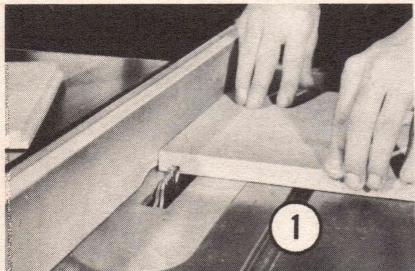


Furniture (UNIT D)



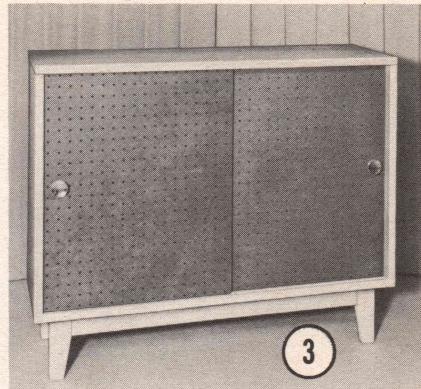
Unit D is the same width and height as the preceding units but is proportionately longer. It can properly be used as a group member with the A, B and C modular units or set apart from these and used to help balance some desired arrangement of furniture. The length can be altered to fit a specific space in a room. Shelves are made adjustable by inserting wood dowels in the series of holes bored in the sides of the cabinet.

The jig used in making the tapered legs is shown in detail on Page 72. Cutting operations for the legs are also shown on Page 72. Leg stretchers are doweled and glued to the legs.



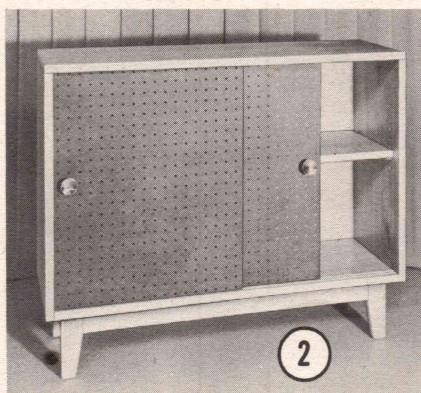
The grooves are made to fit the tongue by using two $\frac{1}{8}$ inch outside dado cutters.

BILL OF MATERIAL Unit (D)		
No.	Name	Size
4	Legs (Front & Back)	$\frac{3}{4} \times 2 \times 6$
2	Legs (Side)	$\frac{3}{4} \times 1\frac{1}{4} \times 6$
1	Front Stretcher	$\frac{3}{4} \times 2 \times 29$
1	Rear Stretcher	$\frac{3}{4} \times 2 \times 31\frac{1}{2}$
2	Side Stretchers	$\frac{3}{4} \times 2 \times 6\frac{1}{2}$
16	Dowels	$\frac{5}{16} \times 2$
2	Sides	$\frac{3}{4} \times 12 \times 22\frac{1}{2}$
1	Bottom	$\frac{3}{4} \times 12 \times 35$
1	Top	$\frac{3}{4} \times 12 \times 36$
1	Shelf	$\frac{3}{4} \times 10\frac{1}{4} \times 34\frac{3}{8}$
1	Back Panel	$\frac{1}{4} \times 22\frac{1}{2} \times 35\frac{1}{2}$
2	Doors	$\frac{1}{8} \times 22 \times 18$
4	Shelf Supports	$\frac{1}{4} \times 1"$
16	Dowels	$\frac{5}{16} \times 2"$
2	Handles	
12	Fl. Hd. Wood Screws	#8 x 1 $\frac{1}{4}$



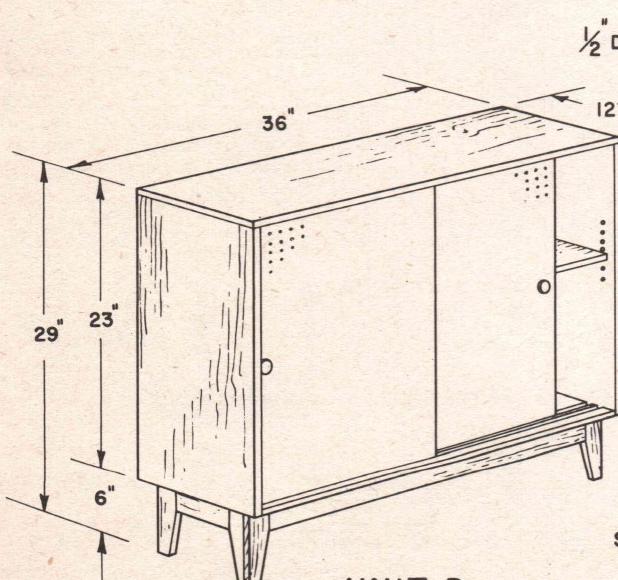
3

If you are crowded for storage space, this unit could be used to hold sheets and towels, or other items not usually found in one's living room cabinets.

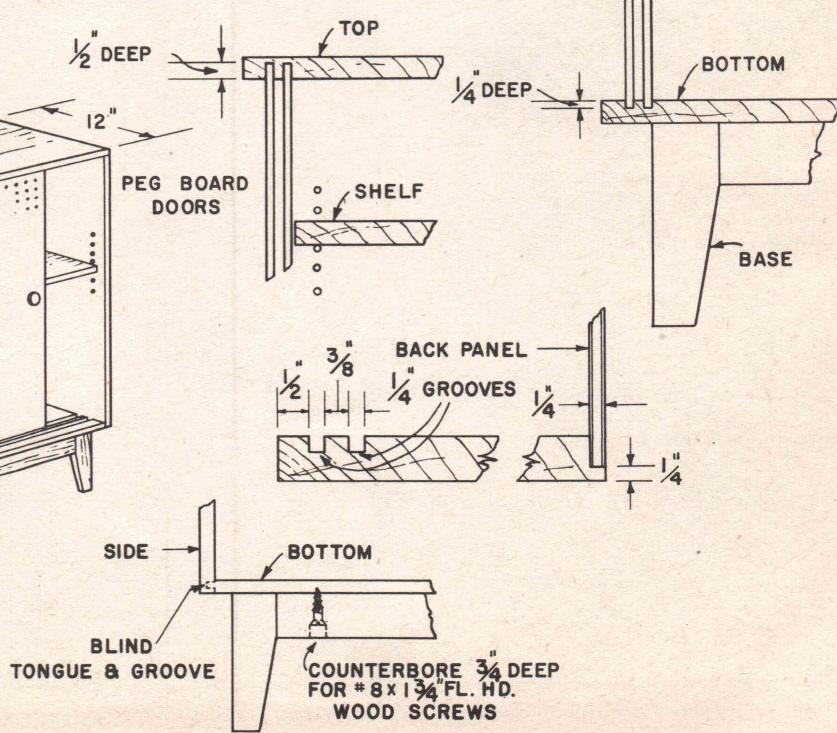


2

The sliding door is partly open to expose the shelf which can be moved up or down $4\frac{1}{2}$ inches. $\frac{1}{4}$ inch dowel rods are used as shelf supports.



UNIT D



Flower Box and Valance



The valance and flower box shown at the left are expressive of the design shown in other pieces of modular unit furniture.

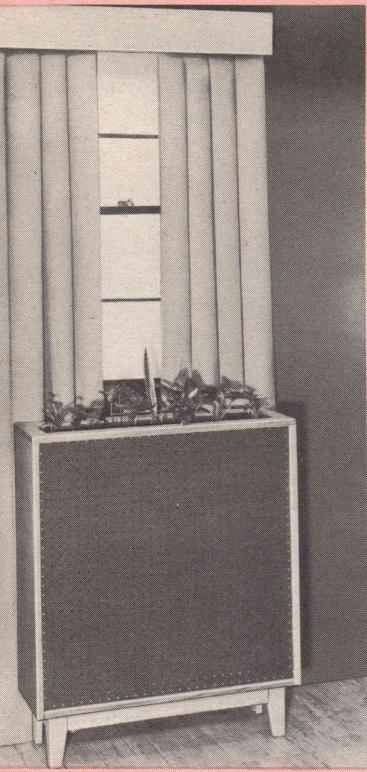
The valance can be built to suit your windows by merely increasing the length to the proper dimension. The length should include 3 or 4 inches on each side of the existing window trim. Use picture hangers or method shown in Fig. A for hanging.

The peg board pressed wood front is recessed in the flower box cabinet and is screw fastened to $\frac{3}{4} \times \frac{3}{4}$ inch wooden cleats secured to the inner sides of the cabinet. See Fig. B in the drawing at the right. Panel can also be set into the sides as in Fig. C.

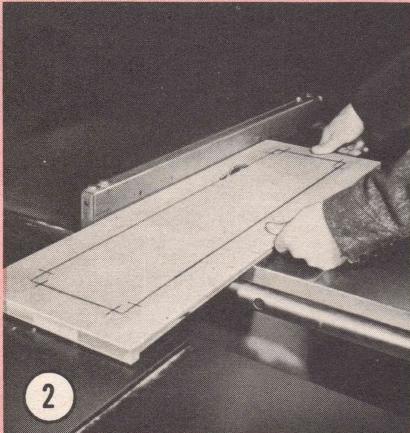
The metal flower container can be easily fabricated from do-it-yourself aluminum. If you want to grow your flowers directly in the container, all joints will have to be soldered water tight. Or the plants can remain in the original pots as in Photo 1.

The leg construction, shown on Page 72, applies to this piece of furniture also. Solid stock which matches the plywood cabinets is used for the legs and stretchers.

BILL OF MATERIAL		
Valance		
No.	Name	Size
1	Front	$\frac{3}{4} \times 5 \times 36$
2	Side	$\frac{3}{4} \times 5 \times 4$
2	Picture Hangers	
Unit (F)		
4	Legs (Front & Back)	$\frac{3}{4} \times 2 \times 6$
2	Legs (Side)	$\frac{3}{4} \times 1\frac{1}{4} \times 6$
1	Front Stretcher	$\frac{3}{4} \times 2 \times 23$
2	Side Stretchers	$\frac{3}{4} \times 2 \times 3\frac{1}{2}$
1	Back Stretcher	$\frac{3}{4} \times 2 \times 25\frac{1}{2}$
2	Sides	$\frac{3}{4} \times 9 \times 29\frac{1}{2}$
1	Bottom	$\frac{3}{4} \times 9 \times 29$
1	Top	$\frac{3}{4} \times 9 \times 30$
1	Back (Plywood)	$\frac{1}{4} \times 29\frac{1}{2} \times 29\frac{1}{2}$
1	Front (Peg Board)	$\frac{1}{8} \times 28\frac{1}{2} \times 28\frac{1}{2}$
2	Cleats	$\frac{3}{4} \times \frac{3}{4} \times 28\frac{1}{2}$
2	Cleats	$\frac{3}{4} \times \frac{3}{4} \times 27$
8	Fl. Hd. Wood Screws	#8 x 1 $\frac{3}{4}$
16	Dowels	$\frac{5}{16} \times 2$
4	Rd. Hd. Wood Screws	#5 x $\frac{3}{8}$
1	Metal Container to Fit Opening (Fig. A)	

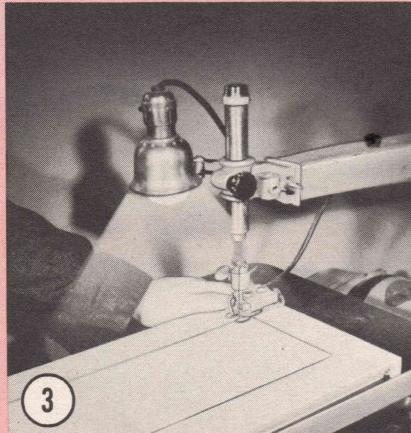


1



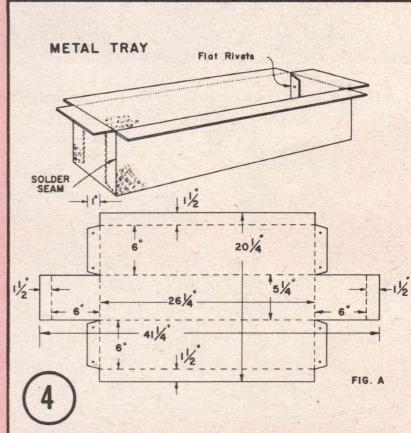
2

Use the circular saw to cut the opening for the metal flower box. Extreme caution must be taken when lowering the stock on the revolving blade. Mark the fence with a pencil to indicate the limit of the cut.

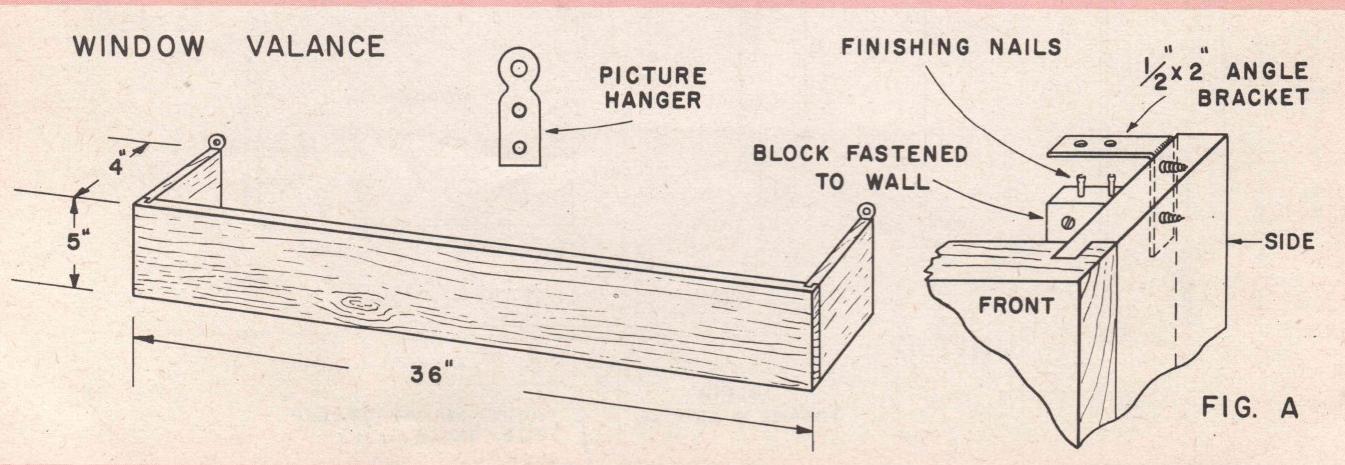


3

Finish cutting the opening on the scroll saw. Use the #92-10 tooth blade and run the saw at highest speed for a smooth cut.

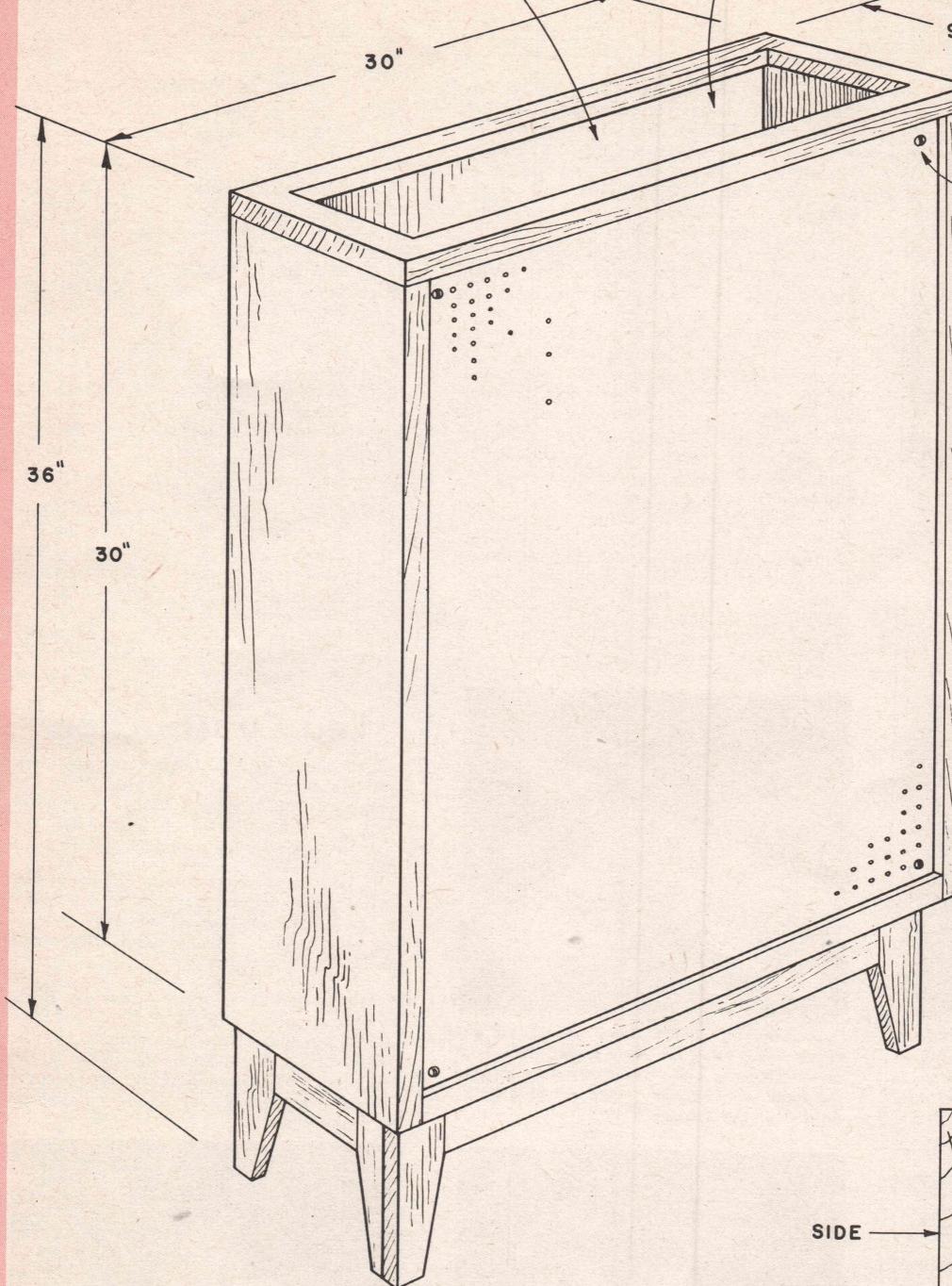


Cut the metal container for the flower box out of do-it-yourself aluminum according to the drawing shown above.



METAL CONTAINER TO FIT
OPENING (SEE FIG. A)

OPENING - $5\frac{1}{4}'' \times 26\frac{1}{4}''$



PLANTER
CABINET

UNIT F

ROUND HEAD
WOOD SCREW

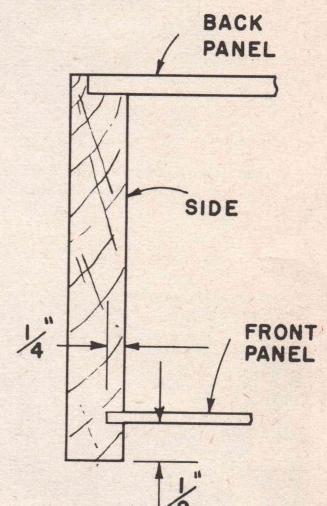
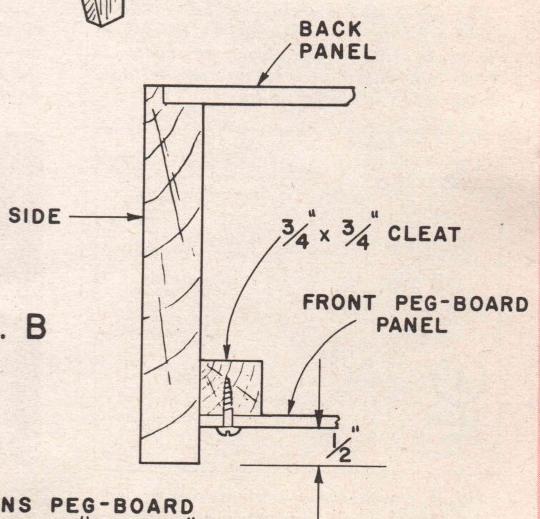
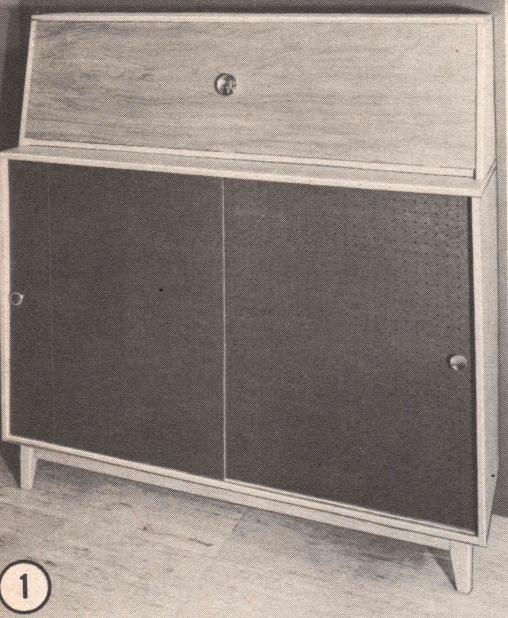


FIG. C

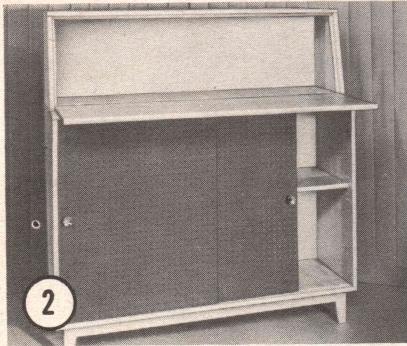
FIG. B



SCREW FASTENS PEG-BOARD
TO CLEATS WITH # 6 x $3\frac{3}{4}''$
RD. HD. WOOD SCREWS.



1
As shown in the photo above, the bar is closed and is flush with the front edges of the cabinet.



2
The photo above shows the bar in down position where it is supported by the top of the lower cabinet. The cleats, on the inside of the bar cabinet, support the top and sides of bar when in closed position.

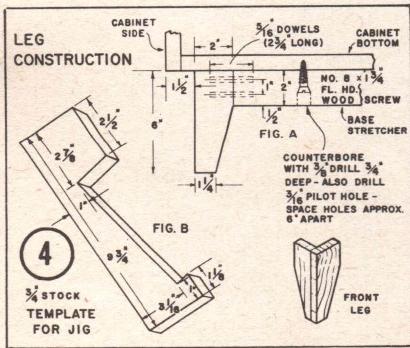


Fig. A shows construction details of legs. Fig. B shows the jig used for mass production on the legs.

Bar and Cabinet Units



The two sections which comprise this unit are the largest of the modular furniture group. The bar section merely sits on the top of the cabinet but may be fastened directly to the wall and used as a desk. If used as a desk, the door must have an additional means of support, such as a combination hinge and support or the conventional eight or ten inch lid support which will support it in an open position. With this arrangement, the cabinet becomes an independent piece.

The top section is not as wide as the cabinet (Photo 1), so that when the door is open (Photo 2), it is partially supported by the cabinet top. A 2 1/2 inch diameter knob with a concave surface is used for the door pull and is located at the center of the door. The center can be quickly determined by the intersection of lines from the opposite corners.

1/4 inch thick peg board pressed wood with 1 inch hole spacing is used for the sliding doors of the cabinet. Fig. A shows the detail of the door slide grooves. Photo 2 shows the door slightly open, exposing the adjustable shelf.

1/4 inch thick peg board pressed wood with 1 inch hole spacing is used for the sliding doors of the cabinet. Fig. A shows the detail of the door slide grooves. Photo 2 shows the door slightly open, exposing the adjustable shelf.



3
Grooves for sliding doors are cut on the circular saw using the dado head. Make trial cuts on a scrap piece of wood before making the final cut. The piece being cut here is the bottom of the cabinet.



5
Two leg sections will be cut from each of the blocks stacked at the right. Note that the stop rod attached to the miter gage permits you to make accurate repeated cuts without measuring each piece.

BILL OF MATERIALS		
	Unit (E)	Base
No.	Name	Size
4	Leg (Front & Back)	3/4 x 2 x 6
2	Legs (Side)	3/4 x 1 1/4 x 6
2	Side Stretcher	3/4 x 2 x 10 1/2
1	Front Stretcher	3/4 x 2 x 47
1	Back Stretcher	3/4 x 2 x 49 1/2
2	Sides	3/4 x 16 x 33 1/2
1	Bottom	3/4 x 16 x 53
1	Top	3/4 x 16 x 54
1	Shelf	3/4 x 14 1/4 x 52 1/2
1	Back Panel	1/4 x 33 1/2 x 53 1/2
2	Doors (Peg Board)	1/4 x 27 x 33
16	Dowels	5/16 x 2
12	Fl. Hd. Wood Screws	#8 x 1 1/2" Diam.
2	Door Knobs	1 1/2" Diam.
	Top	
2	Sides	3/4 x 12 x 15 1/2
1	Top	3/4 x 9 x 54
1	Bottom	3/4 x 11 1/16 x 53
1	Door	3/4 x 14 1/2 x 52 1/2
3	Hinges	1 1/2 x 3
2	Door Cleats	1/2 x 3 1/4 x 14 1/4
1	Door Cleat	1/2 x 3/4 x 52 1/2
1	Back Panel	1/4 x 15 1/2 x 53 1/2
1	Door Knob	2 1/2 Diam.

Leg Construction

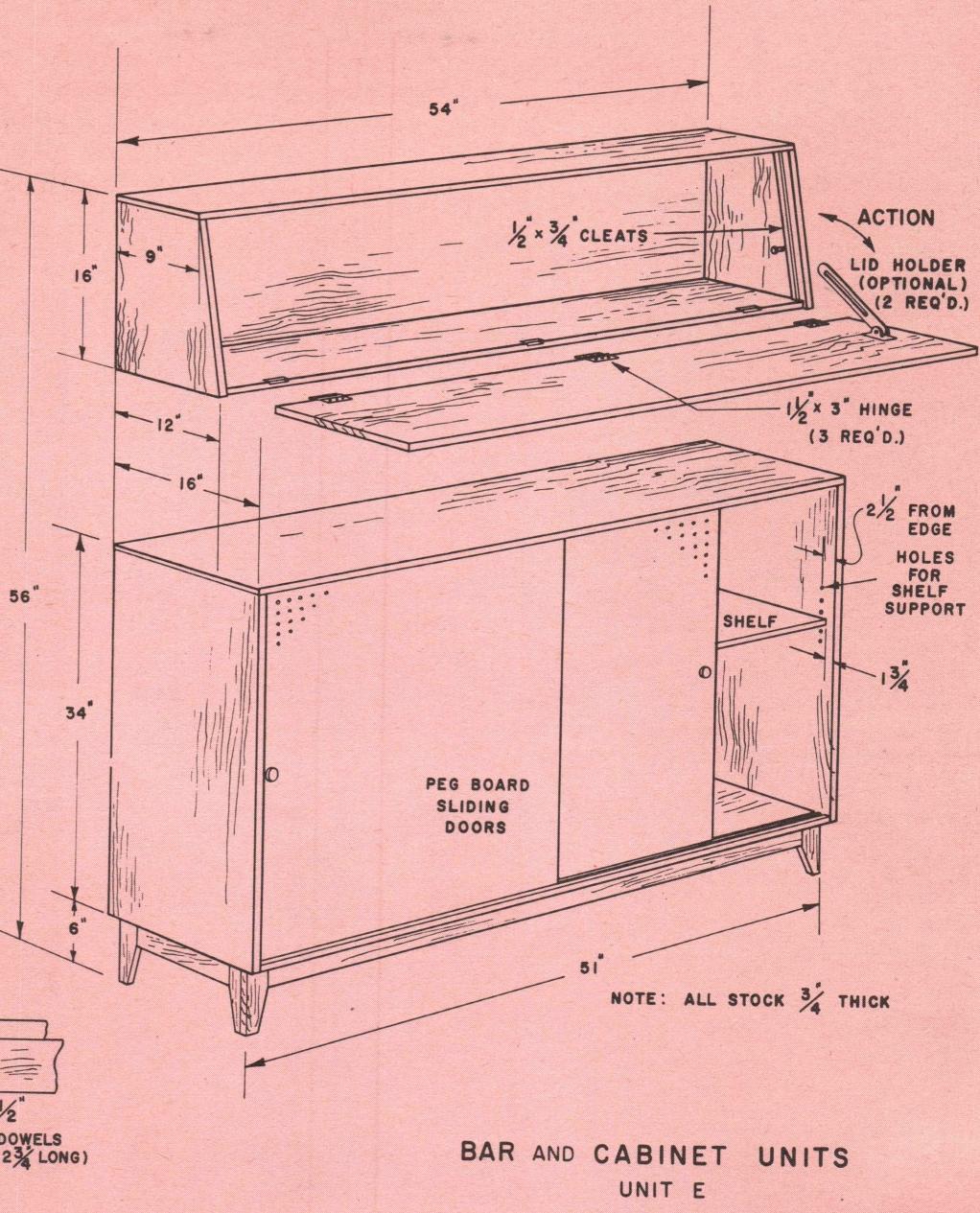
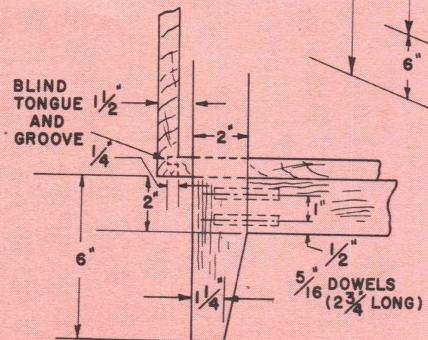
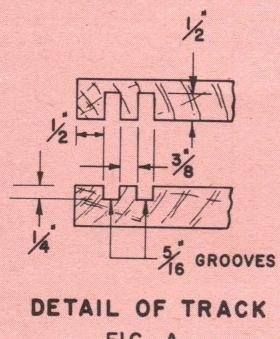
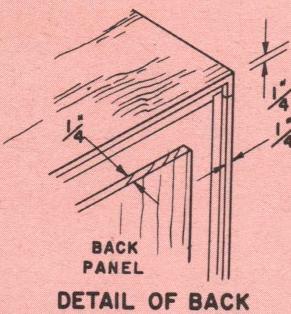
The details of leg construction are identical for all units in this series. Only the length of the stretchers varies. Use solid stock 3/4 inch thick which will match the plywood used for the cabinets.

If you are making several or all of the units, repeat the same operation on every leg before proceeding to the next step in leg construction. This is clearly illustrated in the photographs below.

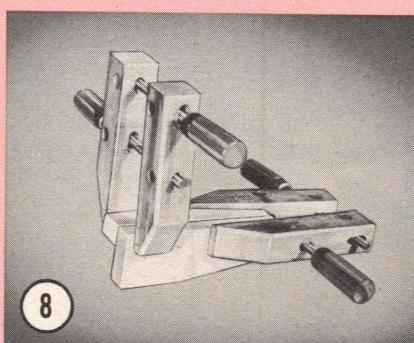
The front legs of the cabinets are made of two pieces of solid stock glued together at right angles. Any unevenness in the length of the legs can be removed on the disk sander. The drawing (Fig. 4) shows the different dimensions for the two pieces of the front legs.



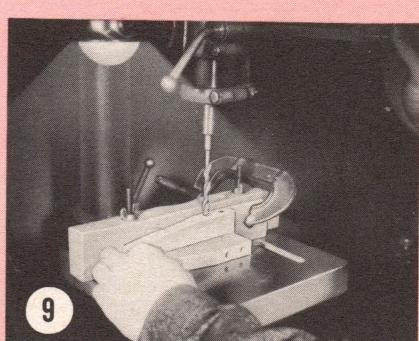
6
A jig is used to cut the tapered edge of the leg (lower left corner Fig. B). The pencil lines on the piece being cut show how two leg sections are cut from one piece of stock. The cut-off piece must also be put in the jig to trim the tapered edge.



A straight edge is cut on the tapered side of the leg. The stretcher is doweled to the leg at this point. Notice the difference between the uncut legs at the rear of the table and finished legs at the front.

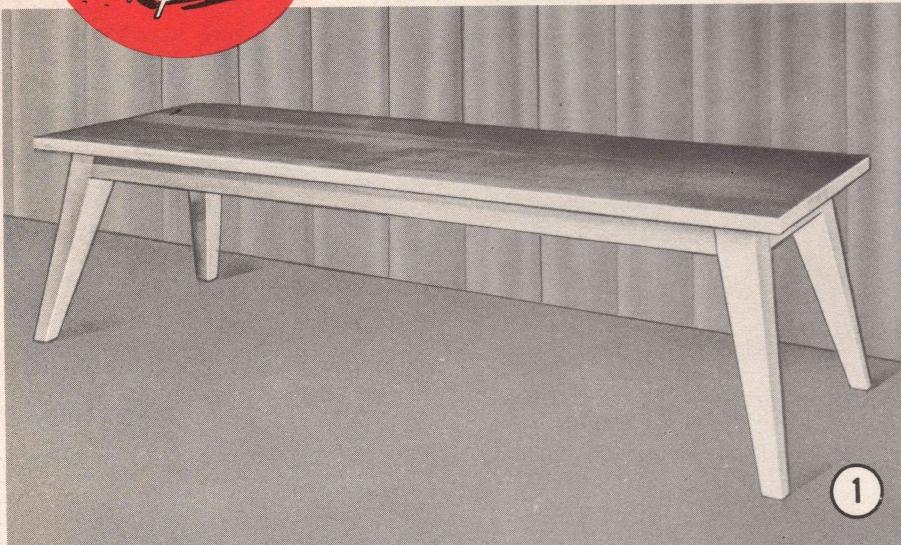


The two halves (one wide, one narrow) of the leg have been glued together. The adjustable type of hand screws are best for this purpose.



The two halves of the leg have been glued together and are now being drilled to receive the dowel rods which will fasten it to the stretchers. The location of the holes will be identical if a stop block and fence is used.

Modern Coffee Table



No home is complete without a coffee table. Because it is small, it will fit into today's moderate sized living rooms.

The table featured on this page was designed to conform with the general lines of the unit furniture described on the preceding pages of this issue.

Begin by gluing three pieces of $\frac{3}{4}$ inch stock to make the $2\frac{1}{8} \times 2\frac{1}{8}$ " legs. Before making the taper cuts you will have to make the compound angle cuts on both the top and bottom of each leg. This is accomplished by setting the saw blade and the miter gage at 9° . (See Fig. B in drawing.) Holes for the dowels are made on the drill press by tilting the table 9° as shown in Photo #4. If your press does not have a tilting table, use a wedge block about 6 inches long cut at a 9° bevel.

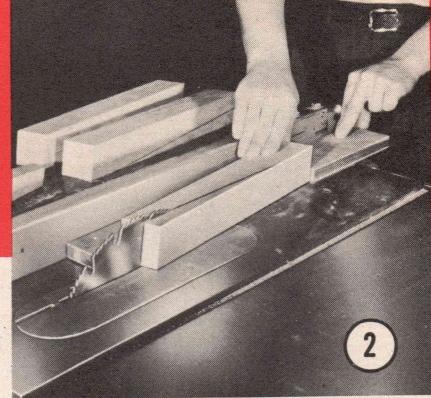
The taper of the legs is cut on the two inside edges only, using the special jig for that purpose (see Fig. A) and cut in two operations as shown in Photos #2 and #3. The tips of the bottom portion of the legs should be in a straight line with the outside edges of the table top. Dowel holes are drilled on the press on the opposite sides of the straight edges of the legs.

The side and end rails can be bored for dowels by clamping the stock against a fixed back piece and hand screw, as shown in Photo #5. The holes in these pieces are bored perpendicular to the top and bottom edges of the rails.

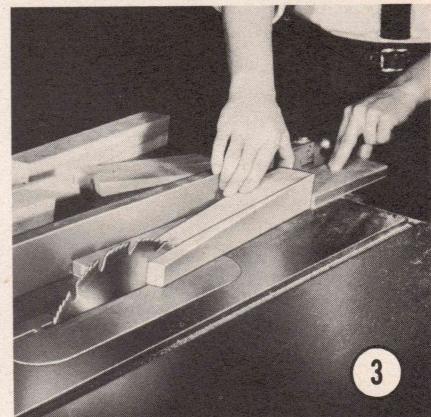
For added strength, corner blocks are screw fastened to the side rails and leg. (Photo #6.) These blocks have compound end cuts. By tilting the saw blade or saw table to 45° and miter gage to 9° , you will have close fitting corner blocks. Then screw fasten with $\#8 \times 1\frac{1}{4}$ inch fl. hd. wood screws.

Be sure to smooth all surfaces with 3-0 and 4-0 sandpaper. The quality of the table will depend on the time spent and the cleaning process.

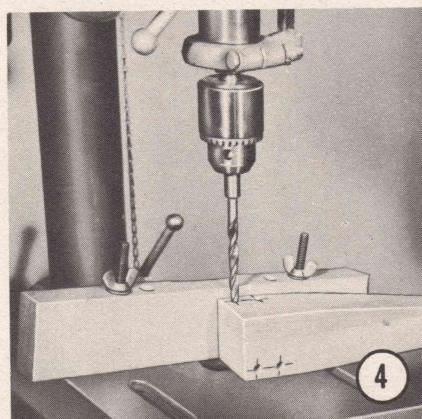
For a natural finish, apply two thin coats of white shellac, sanding between coats with 6-0 paper, and follow with a rubbed effect varnish. For a satin-like finish, apply wax over the varnish.



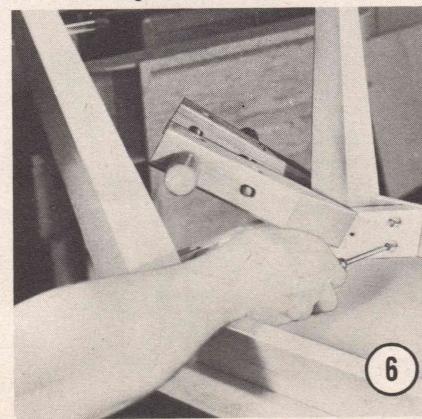
The first taper is being cut on the circular saw with the leg in place in a special jig.



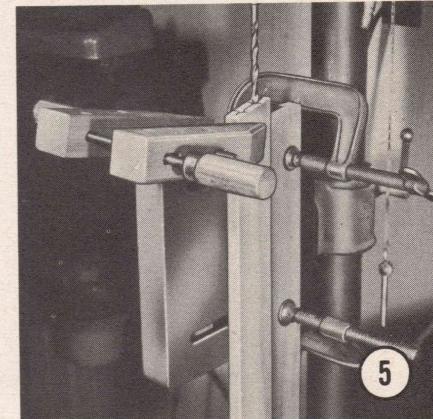
The second taper is cut by merely turning the leg inside the jig as shown above. Mark the portions to be cut to make sure you make the angle cuts on the proper sides in relation to the top bevel cuts.



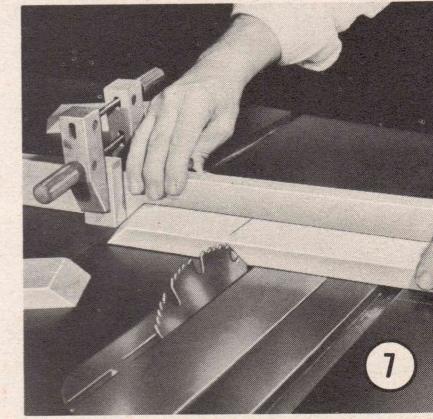
Holes are bored with $\frac{5}{16}$ inch machine spur bits by tilting your table on the drill press to 9° and using the mortising fence as a gage.



Corner blocks are screw fastened to the sides and legs to give table greater rigidity.



Both end and side rails are bored in the manner shown in above photo. Pieces bored are held to the table with hand screws.

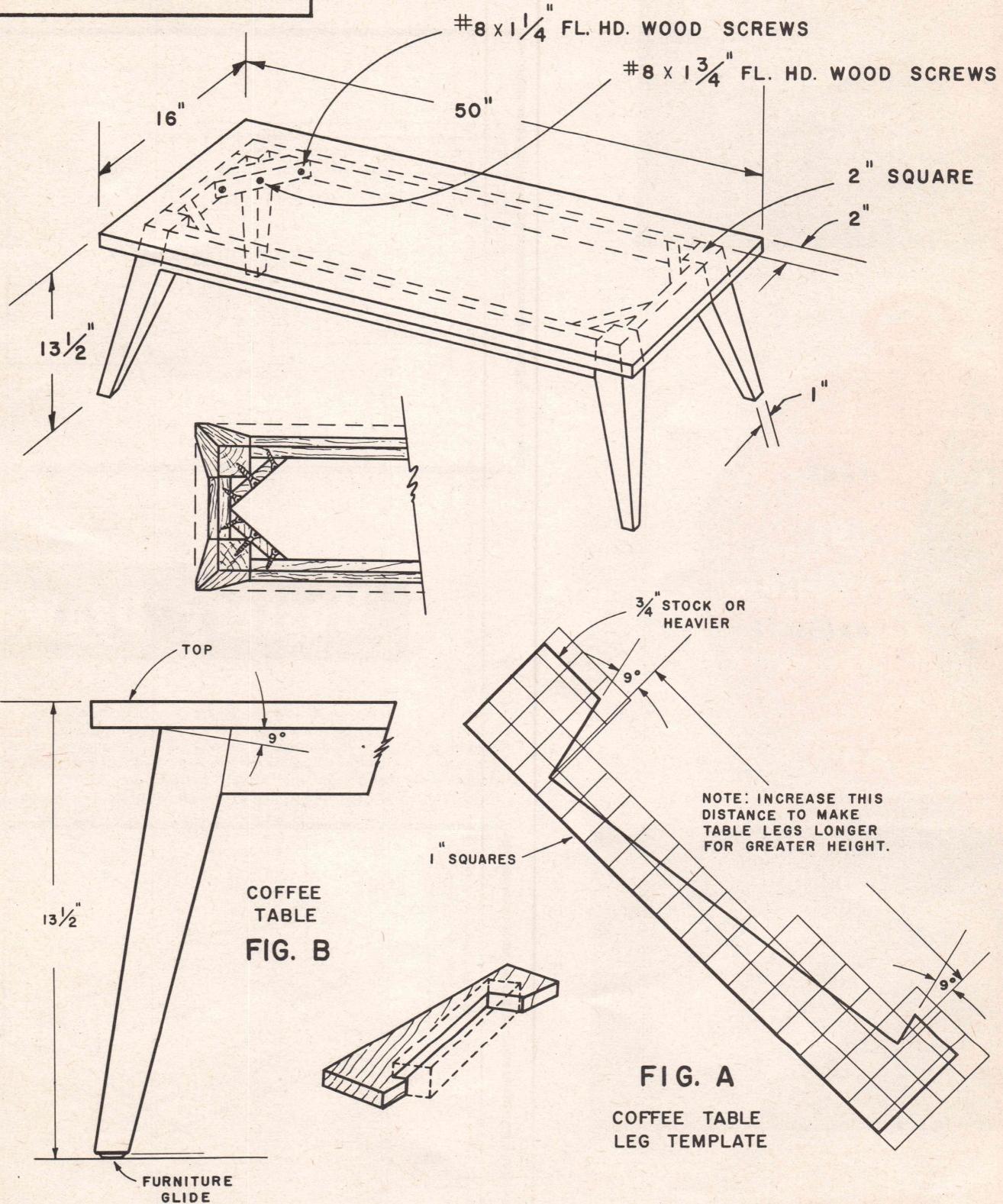


Corner blocks are cut on the circular saw by tilting the blade 45° and setting the miter gage at 9° . Note: Stop block used for length gage.

BILL OF MATERIALS
(Unit E)

No.	Name	Size
4	Legs	2 x 2 x 13½
2	Stretcher (Front & Back)	¾ x 2 x 43½
2	Stretcher (End)	¾ x 2 x 9½
4	Brace Blocks	¾ x 2 x 5¾
1	Top	¾ x 16 x 50
8	Fl. Hd. Wood Screws	#8 x 1¼
4	Fl. Hd. Wood Screws	#8 x 1¾

MODERN COFFEE TABLE

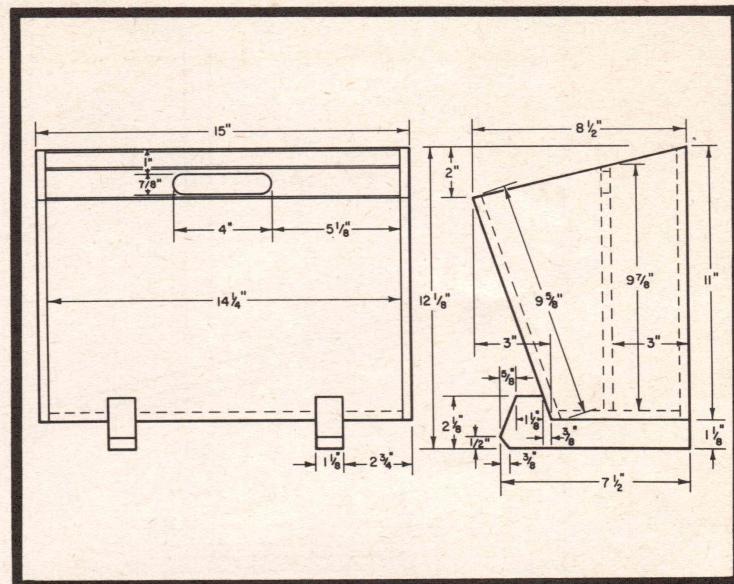




Magazine Rack

This magazine rack was designed to match the modular unit furniture featured in this issue of the Deltogram. $\frac{3}{8}$ inch plywood is used throughout except for the bottom rests. This piece can be painted to add a spot of color to the modular units which have a natural finish.

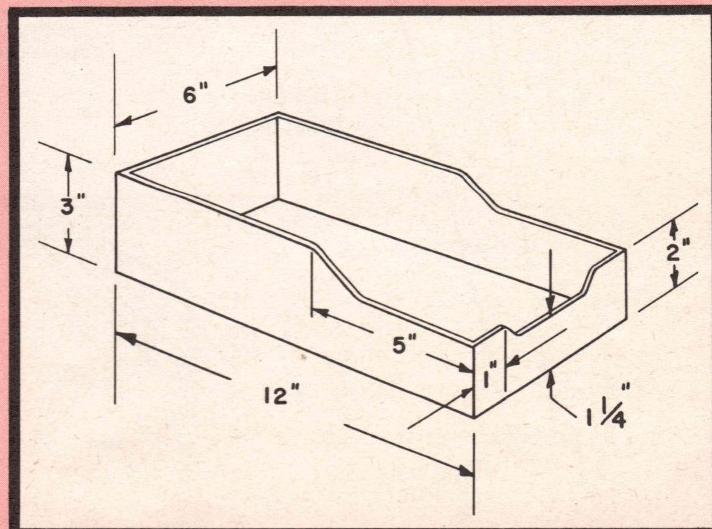
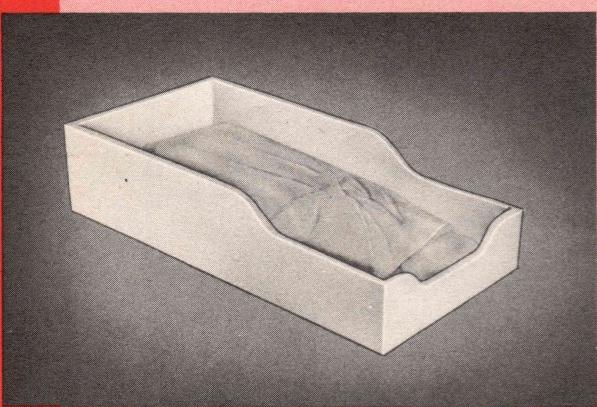
The handle hold is cut out on the scroll saw.



Hosiery Drawer

The lady of the house should appreciate your making this hosiery tray for her. Use $\frac{1}{4}$ inch plywood throughout. The butt joints are glued and fastened with brads. Countersink brads and cover with a paste wood filler. Do a very thorough job of sanding and round all corners as milady would become disturbed if she snagged a stocking.

Seal with a coat of shellac, leave natural or paint any desired color.

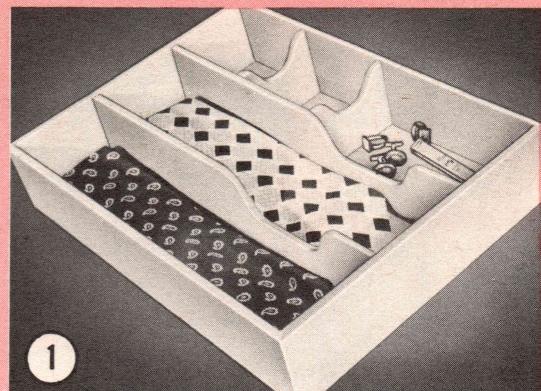
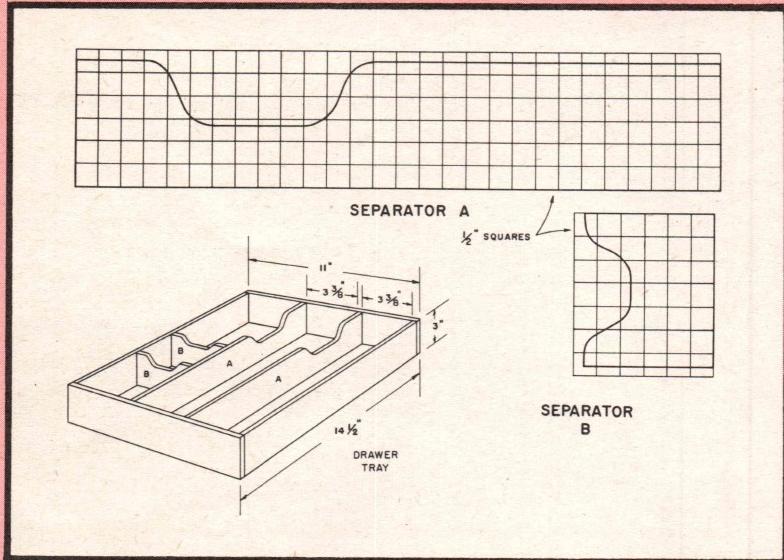


Drawer Tray



Here's a tray designed for Dad. The long compartments will hold quite a few folded neckties. The smaller sections can hold cuff links, tie clasps, plastic collar stays, a watch or other small items which seem to be so easily misplaced.

$\frac{1}{4}$ inch plywood is used for the entire construction of the tray. Use glue and small brads to fasten the sections in place. Sand, then seal with a coat of wash shellac, paint or leave natural to suit your wishes.



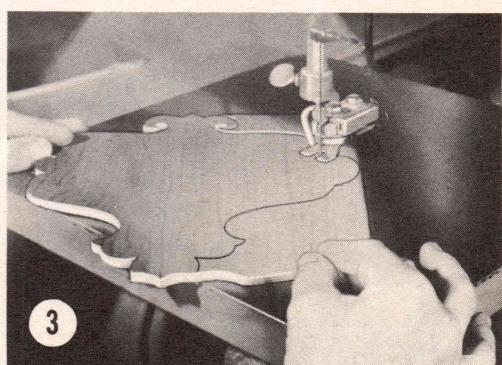
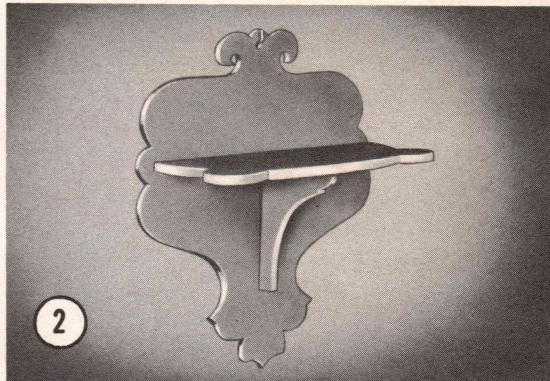
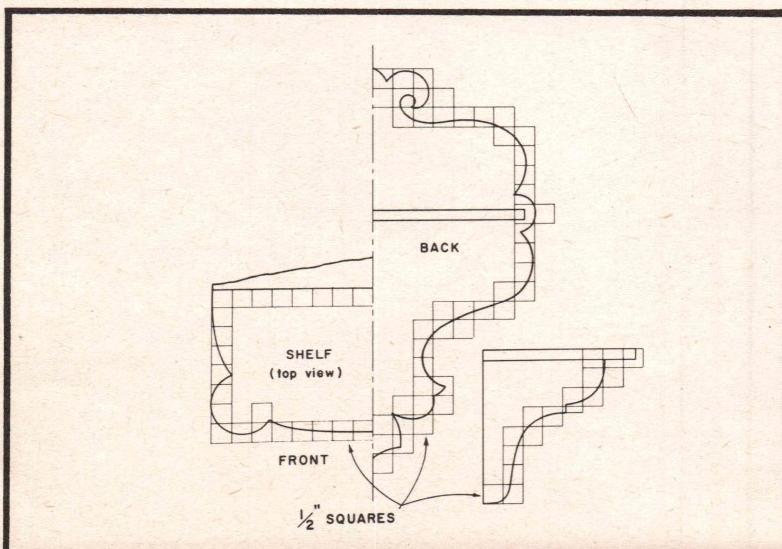
Several trays can be stacked one over the other in the chest of drawers or dresser.

BILL OF MATERIAL		
No.	Name	Size
2	Sides	$\frac{1}{4} \times 3 \times 14$
2	Ends	$\frac{1}{4} \times 3 \times 11$
2	Partitions (A)	$\frac{1}{4} \times 2\frac{3}{4} \times 14$
2	Partitions (B)	$\frac{1}{4} \times 2\frac{3}{4} \times 3\frac{1}{4}$
1	Bottom	$\frac{1}{4} \times 10\frac{1}{2} \times 14$

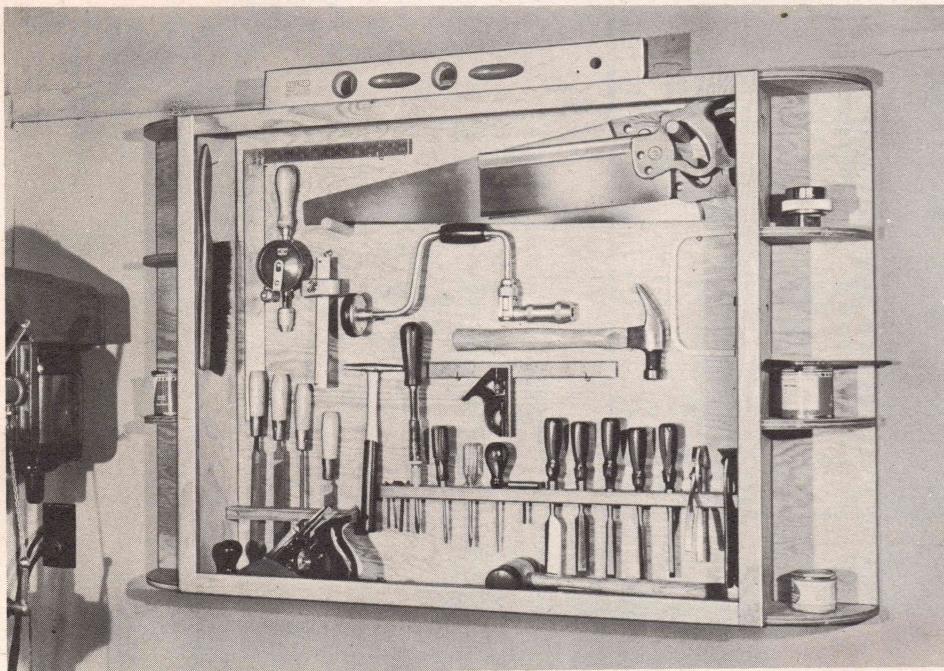
Scrolled Shelf



This simple shelf made of odds-and-ends of $\frac{1}{4}$ inch plywood makes a dandy project for a Boy Scout group or camp. Clean all sharp corners and stain or paint to suit.



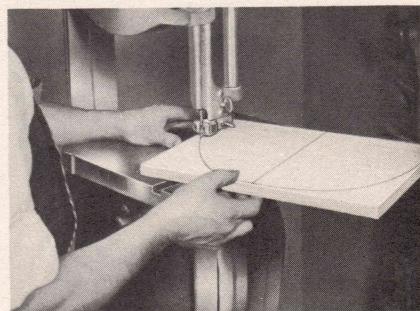
The back of the shelf is being cut on the scroll saw using a #59 blade running at highest speed.



Tool Panel

Every home workshop needs a tool panel if it is to live up to the axiom, "A place for everything and everything in its place." The arrangement of tools is up to the individual; however, most of you will find it easy to use screw hooks and other common types of fasteners to secure your tools to the panel. If you wish, you can make wooden brackets and design them to hold the tools.

The corner shelves are very handy places to store boxes of screws, a jar of glue or other small items that are frequently used. These corner shelves are glued and blind dadoed to the vertical supports and screw fastened from the back.



The four outside curved shelves can be easily cut in multiples by stacking, on either your band or scroll saw, or they can be cut individually as shown above.

TOOL PANEL

1/2" x 1/4" FRAME

48"

5 1/2"

30"

(A)

(B)

TOP

SIDE

SET IN BLIND DADO

TOOL HOLDERS

1 1/2"

9"

1/2" HOLES

1 3/4" APART

5/8" HOLE

24"

A

B

1 1/2"

1 3/4"

BILL OF MATERIALS

No.	Name	Size
2	Sides	1/2 x 5 5/16 x 29 5/8
1	Top & Bottom	1/2 x 5 1/2 x 48
4	Shelves	1/2 x 5 5/16 x 5 5/16
2	Front Frame (Sides)	1/2 x 1 1/4 x 30
2	Front Frame (Top & Bottom)	1/2 x 1 1/4 x 36
1	Long Tool Rack	3/4 x 1 1/2 x 24
1	Short Tool Rack	3/4 x 1 1/2 x 9



Workshop Book Review

"100 BEAUTIFUL PIECES OF FURNITURE YOU CAN BUILD"

Designs by John Bergen

Price \$3.00

For those who wish to build additional pieces of furniture using modern plywoods, here's a book with good suggested designs.

With the use of motor driven equipment, you can build some really exciting modern pieces of furniture for practically every room of your home. This book features plans for complete suites for living room, dining room and bedroom. Added to these are many occasional and odd pieces for your recreation room. Among these are exclusive designs by John Bergen, famous furniture stylist. All drawings contain scaled diagrams and plans.

The book has 144 pages; 48 of these are in brilliant full color to show just how the finished pieces look in a complete room setting. Get your copy for your workshop library from your local book store or write direct to the publishers.

POPULAR MECHANICS PRESS
200 E. ONTARIO ST.
CHICAGO 11, ILLINOIS



These sources are listed as a service to Deltagram readers and do not necessarily constitute an endorsement by the Editor.

All plywood used in this issue is made by the U. S. Plywood Corporation and can be obtained from your local lumber yard.

For further information regarding use and applications of any type of plywood, see your local lumber dealer or write direct to:

U. S. Plywood Corporation
Box 61
New York 46, N. Y.

Door Pulls, Hinges and Furniture Glides
Unit B Page 67
Unit D Page 69
Unit E Page 72
Local hardware store. If not available, write to:

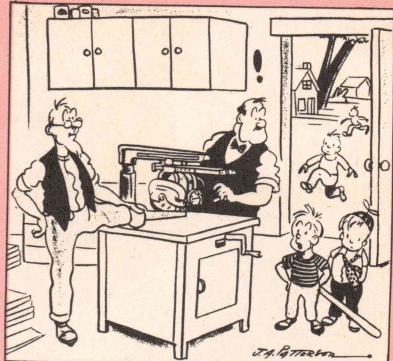
Upholstery Supply Co.
1033 N. Fourth Street
Milwaukee, Wis.

Shop Hints

For a slick finish on coarse grained fir plywood, seal the surface with a good quality resin sealer or enamel undercoat. Your local paint dealer will recommend the proper sealer for the specific job you have in mind. Be sure to seal or undercoat lightly, or rub down all surfaces with 4-0 or 6-0 steel wool.

If you want to retain the natural grain pattern of plywood, select panels for pattern and appearance; you'll get a much better-looking finished project.

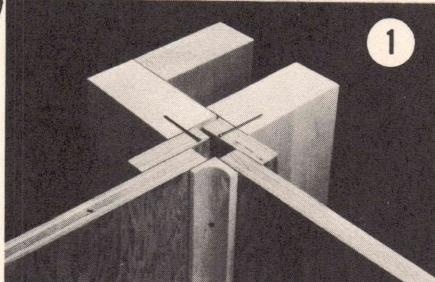
For a good wearing surface, apply one coat of flat varnish. Additional richness can be had by rubbing the varnished surface with fine 6-0 and 8-0 steel wool.



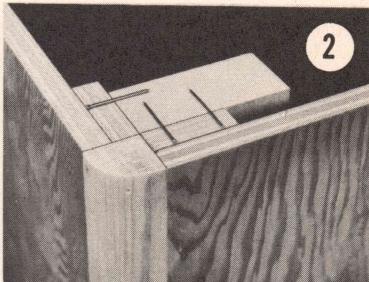
"What kind of an amputation is this? No blood—just old sawdust!"

Delta CRAFTSHEET

JOINTS IN
PLYWOOD
PANELING



1

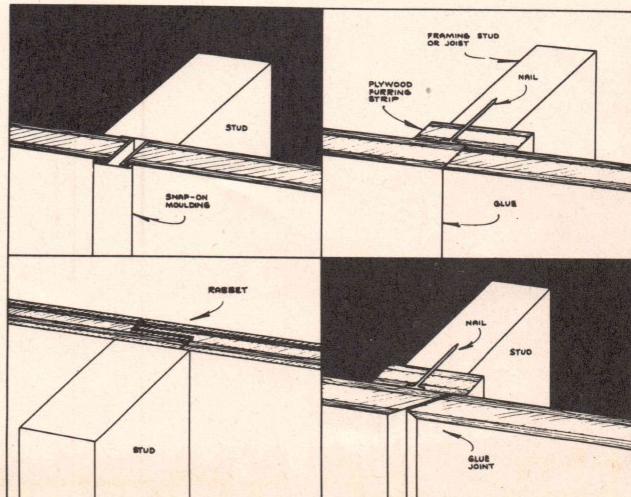


2

NO. 1 SERIES

THE construction of joints is one of the most interesting features in the use of plywood paneling. Most of the joints illustrated here are shown with plywood furring strips behind the joints. The furring strips are nailed and glued, or just nailed alone, to the joists or studs, and the finish paneling is glued to the furring. This allows the frame to move due to swelling behind the finish without affecting the surface or the joints. Allowance for such movement is built-in at the corners, behind base moulds, and trim strips.

Joints directly over studs should never be tight-butted but should be left open from $\frac{1}{8}$ " to $\frac{1}{4}$ ". This space should be filled in with caulking compound and smoothed over by means of a sanding block.



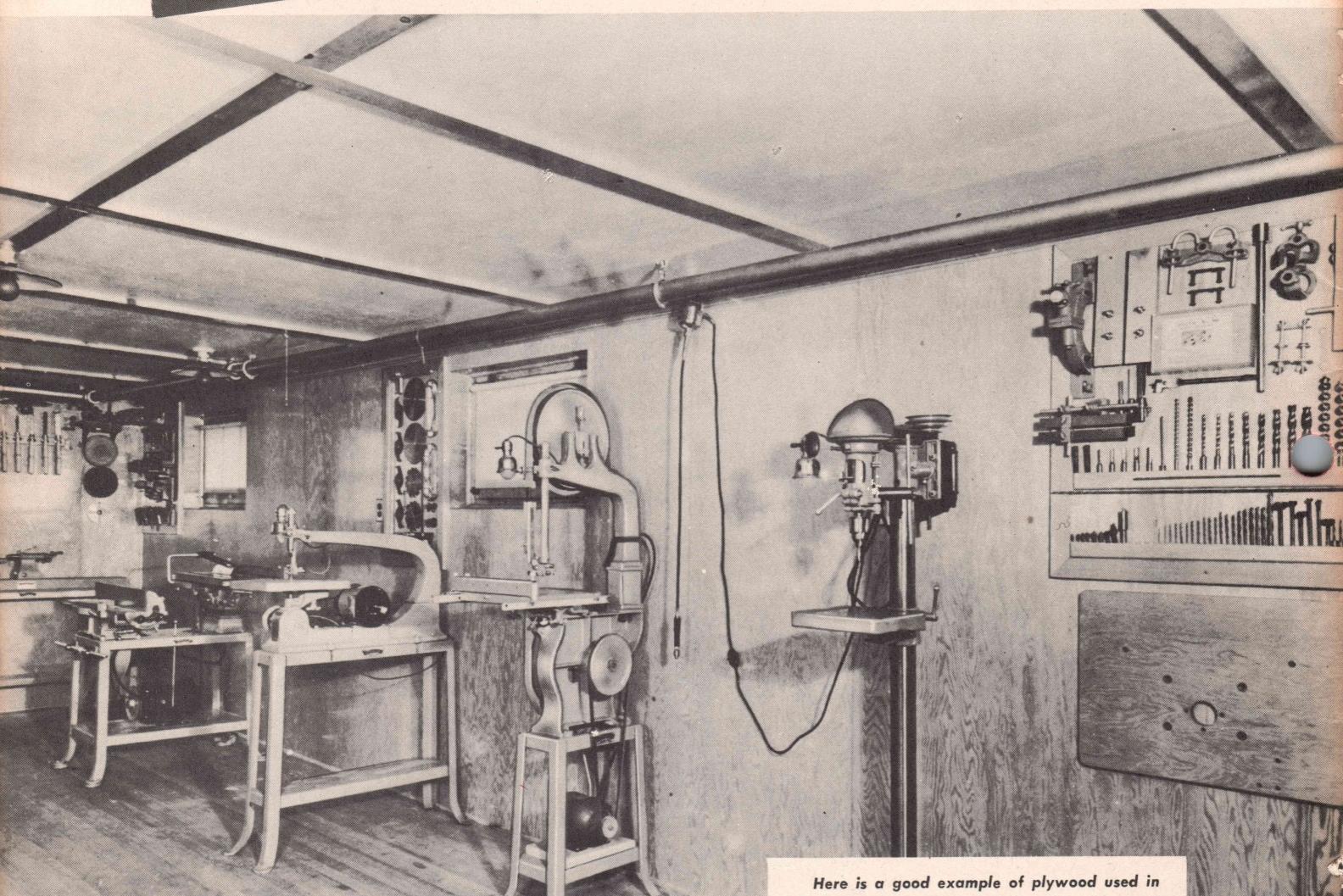


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Cat. #4638 Plans.....

Price .25



Here is a good example of plywood used in a home workshop. Forty-eight inch wide panels were used on the walls and ceiling. The accessory panels also made of plywood are very handy to the machines on which they are used. The owner of this shop left the fir panels natural by applying two coats of sealer (shellac) and followed with wax to preserve the finish.



Rockwell MANUFACTURING COMPANY

DELTA POWER TOOL DIVISION

PITTSBURGH 8, PENNSYLVANIA